

OIB - HU-25C Guardian 10/08/15 Science Report

Aircraft:

[HU-25A Guardian #525](#) ([See full schedule](#))

Date:

Thursday, October 8, 2015

Mission:

OIB

Mission Location:

Kangerlussuaq, Greenland

Mission Summary:

Mission: Falcon Thomas-Jakobshavn 01 (priority: high)

This mission is identical to the Thomas-Jakobshavn 01 mission flown in Spring 2015, but shortened by eliminating the portions of that flight devoted to the dense 10-km grid on lower Jakobshavn Glacier. It continues an IceBridge time series flown along this IceSat-1 grid every year from 2009 to 2015.

The weather for this flight was excellent for the most part, with low-level outflow in the Jakobshavn basin creating a widespread descending air mass throughout most of the area. However the eastern portion of the sector was influenced by a mid-level stratus deck, which in turn was associated with a low-pressure system east of Greenland's dividing ridge. This stratus was unusual in that it "spilled over" the ice divide from east to west, and retained enough of its moisture, even as its air mass sped downhill and warmed west of the divide, to remain condensed as thin cloud for a time. This situation seems to lead to quickly-changing "streamers" of stratus cloud which come and go much faster than most other cloud masses. The result today was that we anticipated losing portions of the southeastern-most lines to the stratus, but instead lost portions of the east-central and northeastern sectors. The location of the stratus "streamers" had changed abruptly from the time of the last satellite image available before we launched. All in all, we estimate that we achieved successful data collection along 80% of the flightlines, with almost all of the lost data occurring on the two easternmost lines.

All instruments performed well during the flight.

We conducted a ramp pass at 15,000' MSL.

Data volumes:

DMS: 20.9 Gb

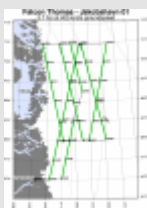
Narrow Swath ATM: 21 Gb

FLIR: 1.9 Gb

total data collection time: 3.5 hrs

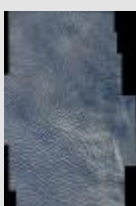
Images:

Map of Falcon - Thomas-Jakobshavn 01



[Read more](#)

DMS mosaic of Jakobshavn Glacier



[Read more](#)

Store Glacier



[Read more](#)

Submitted by:

John Sonntag on 10/08/15

Related Flight Report:

HU-25C Guardian 10/08/15

Flight Number:

OIB2015 Arctic Thomas-Jakobshavn 01

Payload Configuration:

ATM & DMS

Nav Data Collected:

No

Total Flight Time:

3.7 hours

Submitted by:

Luci Crittenden on 10/08/15

Flight Segments:

From:	BGSF	To:	BGSF
Start:	10/08/15 15:20 Z	Finish:	10/08/15 19:02 Z
Flight Time:	3.7 hours		
Log Number:	16F002	PI:	John Woods
Funding Source:	Thomas Wagner - NASA - SMD - ESD Cryosphere & International Polar Year		
Purpose of Flight:	Science		
Comments:	OIB HU-25 flew a second mission today - the Thomas-Jakobshavn 01 flight plan. The New York Times photographer flew on this mission. Next flight scheduled for Friday, October 9.		

Flight Hour Summary:

	15F005	16F002
Flight Hours Approved in SOFRS	100	
Flight Hours Previously Approved		67.4
Total Used	32.6	65.3
Total Remaining		2.1

16F002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
10/05/15	OIB2015 Arctic Sea Ice Central	Science	3.6	3.6	63.8
10/05/15	OIB2015 Arctic Sea Ice East	Science	3.8	7.4	60
10/06/15	OIB2015 Arctic Ice-Sat2 North	Science	4	11.4	56
10/07/15	OIB2015 Arctic Transit Thule to Kangerlussuaq	Transit	2	13.4	54
10/08/15	OIB2015 Arctic Southwest Coastal A	Science	3.8	17.2	50.2
10/08/15	OIB2015 Arctic Thomas-Jakobshavn 01	Science	3.7	20.9	46.5
10/09/15	OIB2015 Arctic Umanaq B	Science	3.9	24.8	42.6

10/13/15	OIB2015 Arctic Jakobshavn Equip Store	Science	2.9	27.7	39.7
10/13/15	OIB2015 Arctic Southeast Coastal A	Science	3.6	31.3	36.1
10/18/15	OIB2015 Arctic Southeast Coastal B	Science	4.1	35.4	32
10/19/15	OIB2015 Arctic Helheim-Kangerdlugussuaq	Science	3.7	39.1	28.3
10/19/15	OIB2015 Arctic Helheim-Kangerdlugussuaq Gap B	Science	3.9	43	24.4
10/20/15	OIB2015 Arctic Jakobshavn Mop-Up	Science	3.7	46.7	20.7
10/20/15	OIB2015 Arctic Southwest Coastal B	Science	3.7	50.4	17
10/21/15	OIB2015 Arctic Southwest Coastal C	Science	3.4	53.8	13.6
10/21/15	OIB2015 Arctic K-EGIG-Summit	Science	3.7	57.5	9.9
10/22/15	OIB2015 Arctic Mopup South	Science	2	59.5	7.9
10/22/15	OIB2015 Arctic Ferry BGSF-CYYR	Ferry	2.2	61.7	5.7
10/23/15	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	3.3	65	2.4
10/23/15	OIB2015 Arctic Ferry CYYR-KRIC	Ferry	0.3	65.3	2.1

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Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
09/15/15	OIB #1	Check	2.7	2.7	97.3
09/20/15	OIB #2, 3, 4	Ferry	2.7	5.4	94.6
09/21/15	OIB #2, 3, 4	Ferry	2.3	7.7	92.3
09/21/15	OIB #2, 3, 4	Ferry	2	9.7	90.3
09/23/15	OIB2015 Arctic North Central Gap 02	Science	3.9	13.6	86.4
09/24/15	OIB2015 Arctic Northwest Coastal A	Science	3.7	17.3	82.7
09/25/15	OIB2015 Arctic Northwest Coastal B	Science	3.8	21.1	78.9
09/28/15	OIB2015 Arctic Sea Ice West	Science	3.7	24.8	75.2
09/30/15	OIB2015 Arctic North Central Gap 01	Science	3.9	28.7	71.3
09/30/15	OIB2015 Arctic Zachariae-79N	Science	3.9	32.6	67.4